Colorado
Legislative
Council
Staff

Room 029 State Capitol, Denver, CO 80203-1784
(303) 866-3521 FAX: 866-3855 TDD: 866-3472

**MEMORANDUM**

June 21, 2007

**TO:** Members of the Interim Committee to Study the Allocation of Severance Tax and Federal Mineral Leasing Revenues

**FROM:** Legislative Council Staff

**SUBJECT:** Existing Structure of Mineral Revenues in Colorado

The following memorandum provides a brief overview of the existing structure of mineral revenues collected in Colorado. There are two main state revenue sources: 1) severance taxes collected on mineral production, and 2) federal mineral leasing (FML) revenue received from the federal government for mineral leases on federal lands within the state. This memorandum will provide the following information for both severance taxes and FML revenue:

- a review of the current structure of severance taxes and FML revenue;
- an overview of historical collections and current (June, 2007) forecasts; and
- information on the current geographic distribution of severance taxes and FML revenue that are collected from mineral producers operating in Colorado.

**Summary**

Severance tax and federal mineral leasing (FML) revenue have increased substantially in Colorado over the past five years. Severance tax revenue has grown from $33 million to $234 million and FML revenue has grown from $45 million to $143 million. Both are volatile revenue sources because they depend on natural gas and oil prices. In fact, both are projected to decline during the current fiscal year.

The large majority of both severance tax and FML revenue derive from just ten counties, although it is not the same ten counties for each revenue source. Severance tax revenue depends primarily on natural gas production, while FML revenue is based on natural gas, coal, oil, and carbon dioxide production.

## Severance Tax Revenue

***Current Statutory Structure.*** The Colorado state severance tax was officially created in 1977 through the passage of HB77-1076. The stated intent of the severance tax was to recapture a portion of the state's wealth endowment that was lost due to the extraction of nonrenewable resources. Colorado statutes contain provisions regarding severance tax on the production of oil and natural gas, coal, oil shale, molybdenum and other metallic minerals in the state. Table 1 characterizes the current statutory severance tax structure for each of these minerals.

**Table 1**
**Current Structure of Colorado State Severance Tax**

| Extracted Mineral | Statutory Provisions |
|---|---|
| Oil & Natural Gas | • Sliding Tax Rate of:<br>- 2 percent of gross income under $25,000<br>- 3 percent of gross income between $25,000 and $100,000<br>- 4 percent of gross income between $100,00 and $300,000<br>- 5 percent of income above $300,000<br>• 87.5 percent tax credit allowed for property taxes paid on oil and gas production (excluding personal property and stripper well production)<br>• Transportation, processing, and manufacturing expenses are deductible from gross income.<br>• Wells that produce 15 barrels/day or less of oil or 90 thousand cubic feet (Mcf)/day or less of natural gas are tax exempt. |
| Oil Shale | • Sliding Tax Rate of:<br>- 1 percent of gross income, increasing to 4 percent of gross income over a 4 year period at 1 percentage point per year.<br>• First 15,000 tons/day of shale or 10,000 barrels/day of oil, whichever is greater, is tax exempt. |
| Coal | • $0.54 per ton. The statutory rate was designed to change with the producers' price index, but TABOR locked the current rate at $0.54 per ton.<br>• First 300,000 tons produced every quarter are tax exempt<br>• 50 percent tax credit allowed for underground coal or lignitic coal production |
| Molybdenum | • $0.05 per ton of ore<br>• First 625,000 tons produced every quarter are tax exempt |
| Metallic Minerals | • 2.25 percent of gross income over $19 million |

*Source: Section 39-29 C.R.S.*

***History of Severance Tax Structure.*** Prior to 1977, the state collected an income tax on oil and gas production and a per ton tax on coal production. These taxes were repealed as part of the 1977 severance tax enacting legislation. In the three decades following the initial enactment of the severance tax, the General Assembly has enacted several changes to the severance tax statutes. While the majority of these changes have either expanded an exemption threshold or reduced a tax rate, the general structure of the tax has not changed much since its original enactment in 1977. Table 2 summarizes the principal statutory changes that have occurred since 1977 regarding the structure of the state severance tax.

**Table 2**
**Important Changes to Severance Tax Structure Since 1977**

| Year Enacted | Main Provision |
|---|---|
| 1979 | Creation of impact assistance tax credit to encourage mineral producers to assist in the mitigation of social and economic impacts from mineral production prior to revenue collection |
| 1982 | Approval of a severance tax on carbon dioxide production with the same rates, exemptions, and credits as oil and gas severance taxes |
| 1982 | Repeal of the tax credit for oil shale produced from underground *in situ* methods |
| 1984 | Exemption for quarterly coal production was increased from the first 8,000 tons to the first 25,000 tons for FY 1984-85 - FY 1998-99; |
| 1986 | Tax rate on molybdenum ore reduced from $0.15/ton to $0.05/ ton |
| 1999 | Exemption for quarterly coal production was increased from the first 25,000 tons to the first 300,000 tons. |
| 1999 | The exemption for metallic minerals was raised from the first $11 million of gross income to the first $19 million |
| 1999 | The first 625,000 tons of molybdenum ore produced each quarter was exempted from the severance tax. |

*Source: Legislative Council Staff memorandum.*

***History and Forecast of Severance Tax Collections.*** The June 2007 Legislative Council Staff forecast for severance taxes anticipates collections of $151.9 million in FY 2006-07. This estimate was revised upwards due to recent collections that were stronger than anticipated. Compared with FY 2005-06, however, collections are down 35.2 percent, primarily because of a drop in natural gas prices, but also because of the claiming of additional ad valorem tax credits against the severance tax. This tax credit reflects property taxes paid or assessed on oil or gas production. Since property tax assessments are based on the value of production in the prior calendar year, the credit claimed will reflect prices in the prior year. From 2005 to 2006, average wellhead natural gas prices dropped from $7.39 per Mcf, to $6.13 per Mcf.

Over the past five years, aggregate severance tax collections in Colorado have risen sharply, going from $32 million in FY 2002-03 to more than $234 million in FY 2005-06. A sharp and sustained increase in the price of natural gas is responsible for this increase over the past five fiscal years. Table 3 summarizes aggregate severance tax collections, over this time period for all minerals for which the severance tax is imposed. Molybdenum and other metallic minerals are combined due to their relatively small level of production and corresponding share of severance tax revenue.

**Table 3**
**Total Severance Tax Collections, by Mineral, during the last Five Fiscal Years**
**(Millions of Dollars)**

| Mineral | FY 2001-02 | FY 2002-03 | FY 2003-04 | FY 2004-05 | FY 2005-06 |
|---|---|---|---|---|---|
| Oil and Gas | $42.33 | $17.50 | $110.39 | $132.32 | $211.25 |
| Coal | 7.93 | 7.87 | 8.02 | 10.25 | 8.59 |
| Metallic Minerals* | 0.29 | 0.85 | 0.72 | 0.82 | 1.49 |
| Oil Shale | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Subtotal | 50.55 | 26.22 | 119.12 | 143.38 | 221.33 |
| Interest Earnings | 6.93 | 6.37 | 5.93 | 8.58 | 12.92 |
| **Total** | **$57.48** | **$32.59** | **$125.06** | **$151.96** | **$234.26** |

*Source: Colorado Financial Reporting System (COFRS).*
** Includes Molybdenum.*

During this five year period, severance tax collections from oil and gas operations increased from $42.3 million in FY 2001-02 to $211.3 million in FY 2005-06. Collections fell in FY 2002-03 due to a decline in natural gas prices. The productivity of the oil and gas industry in Colorado is almost singularly responsible for severance tax collections. In FY 2005-06, for example, collections from oil and gas operations constituted 95 percent of overall collections.

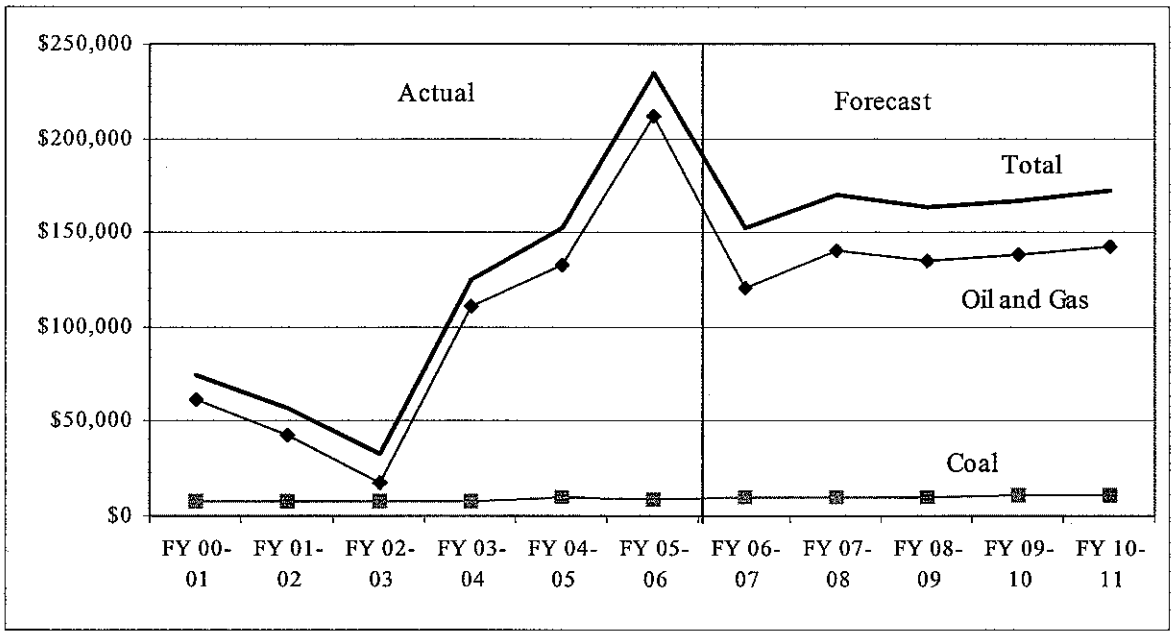
Collections from coal operations constituted only 4 percent of overall severance tax collections in FY 2005-06, and this share has fallen as oil and gas collections have increased over the five years. Collections from coal operations have remained relatively constant over this five year period, growing by 8 percent, from $7.93 million in FY 2001-02 to $8.59 million in FY 2005-06.

Collections from metallic mineral (including molybdenum) constitute less than 1 percent of overall collections, and this share has remained relatively constant over the last five fiscal years. While statutes exist regarding severance taxes on oil shale, the state currently receives no revenues, as no commercial operations exist in Colorado. That could change in the future, as significant research efforts are currently underway in western Colorado to assess the economic viability of oil shale production.

Figure 1 depicts the June 2007 Legislative Council Staff revenue forecast of severance tax collections, by mineral. What is perhaps most evident from this figure is the dominance of the oil and gas industry in determining aggregate severance tax collections. In addition, the figure shows the variability of severance tax revenue. As mentioned above, after climbing sharply over the past five years and peaking in FY 2005-06, oil and gas related revenue and thus overall severance tax revenue is expected to decline by 35 percent in FY 2006-07.

Severance taxes are expected to rebound in FY 2007-08, decrease slightly in FY 2008-09, and increase in the subsequent two years of the forecast period, primarily because of an expected rise in natural gas production. This expansion offsets a projected decline in natural gas prices. In the next three years, natural gas prices are expected to decline about 3 percent per year, reaching a level around $5.60 per Mcf. In contrast, natural gas production is expected to increase by about 5 percent annually. Consequently, the forecast of severance tax collections, including interest earnings, is expected to reach 169.5 million in FY 2007-08 and remain relatively flat thereafter.

**Figure 1**
**Forecast of Aggregate Severance Tax Collections ($000)**




*Source: Legislative Council Staff.*

Since severance tax revenue associated with oil and gas operations is so dominant in determining overall collections, the remainder of this memorandum will focus exclusively on this revenue source. Indeed, of the total value of oil and gas production in 2006, natural gas accounted for about 84 percent, making it the single dominant industry in Colorado in determining aggregate severance tax revenue.

***Statutory Versus Effective Tax Rates.*** Because severance tax collections from oil and gas operators are based on an operator's gross annual income, they are dependent upon both the price of the commodity and the amount of the commodity produced by the operator during that fiscal year. Specifically, the statutory tax rate is a sliding rate set at between 2 and 5 percent, depending on the operator's gross annual income. An operator's gross annual income up to $25,000 is taxed at 2 percent; income from $25,000 to $100,000 is taxed at 3 percent; income from $100,000 to $300,000 is taxed at 4 percent; and income above $300,000 is taxed at 5 percent.

However, three other provisions in current statute help create an effective tax rate lower than the statutory rate. First, producers are allowed to deduct from gross income any costs related to the transportation, processing, or manufacturing of natural gas or oil that are incurred prior to the sale of the product. Second, wells that produce less than 15 barrels of oil per day or 90 Mcf of gas per day are classified as stripper wells, and are exempt from the state severance tax. Third, Colorado operators are allowed to deduct 87.5 percent of the property taxes paid or assessed on natural gas or oil production from their severance tax liability in the current tax year, excluding production from stripper wells.

Table 4 presents aggregate severance tax collections, the associated prior year's production value, and an estimate of the effective, aggregate severance tax rate for oil and gas operations over the last five fiscal years. Severance tax collections and production values are expressed in millions of dollars. Effective tax rates were calculated by dividing total severance tax collections by the production value in the prior calendar year. For example, the value of 2002 oil and gas production was used to calculate the effective rate for FY 2002-03. Production values, in turn, were calculated using an average statewide commodity price. Over this five year period, estimates of effective tax rates ranged between 0.6 percent and 2.1 percent.

**Table 4**
**Aggregate Oil and Gas Severance Tax Collections, Prior Year's Production Value, and Effective Tax Rate for Oil and Natural Gas, FY 2001-02 - FY 2005-06**
**(millions of dollars)**

| Mineral | FY 2001-02 | FY 2002-03 | FY 2003-04 | FY 2004-05 | FY 2005-06 |
|---|---|---|---|---|---|
| Total Revenue | $42.3 | $17.5 | $110.4 | $132.3 | $211.2 |
| Prior Year's Production Value* | $3,738.3 | $2,783.8 | $5,371.5 | $6,933.6 | $9,891.8 |
| Effective Tax Rate | 1.13% | 0.63% | 2.06% | 1.91% | 2.14% |

*Source: COFRS and Colorado Oil and Gas Conservation Commission.*

Data on the ad valorem credit and the transportation, processing, and manufacturing cost deduction are difficult to obtain. However, it is possible using data from the Colorado Oil and Gas Conservation Commission (COGCC), to characterize the effect of the stripper well exemption. Table 5 summarizes the share of Colorado's oil and natural gas wells and production volume that was derived from stripper wells from 2002 through 2006.

| Table 5<br>Share of Wells and Production from Striper Wells<br>Oil and Natural Gas, 2002-2006 | | | | | |
|---|---|---|---|---|---|
| | **2002** | **2003** | **2004** | **2005** | **2006** |
| **Oil** | | | | | |
| Wells | 94.4% | 93.4% | 93.9% | 94.5% | 95.2% |
| Production | 53.4% | 54.1% | 56.9% | 57.2% | 59.7% |
| **Natural Gas** | | | | | |
| Wells | 73.2% | 72.4% | 71.6% | 75.2% | 73.2% |
| Production | 18.0% | 18.2% | 19.4% | 19.7% | 20.4% |

*Source: Legislative Council Staff estimates based on Colorado Oil and Gas Conservation Commission data.*

The vast majority of oil and gas wells in Colorado are stripper wells. In 2006, about 95 percent of all oil wells were stripper wells and about 73 percent of all gas wells were stripper wells. However, there are differences between oil and gas stripper wells regarding the relative amount of production they generate. In 2006, stripper wells accounted for almost 60 percent of the state's oil production, but only 20 percent of the state's natural gas production.

***Estimated Severance Tax Collections, by County.*** Table 6 shows estimated oil and gas severance tax collections by county over the past five years. Deriving these estimates is difficult, as the Department of Revenue does not currently track severance tax collections by county of production or the amount of ad valorem tax credits claimed by taxpayers. These estimates were derived based on actual tax collections, county mill levies, county assessed values for oil and gas real and personal property, and county estimates of oil and gas production from COGCC, including stripper well production.

In FY 2005-06, the state collected about $211 million in oil and gas severance taxes. Companies with operations in 27 counties in the state contributed to this amount, with those in La Plata and Garfield counties paying approximately $100.9 million and $53.0 million, respectively. Companies in Las Animas, Rio Blanco, and San Miguel counties contributed an estimated $22.4 million, $15.6 million, and $4.5 million, respectively. These five counties accounted for about 93 percent of all oil and gas severance taxes in FY 2005-06. In contrast, in FY 2002-03, the state collected about $17 million in oil and gas severance taxes, with a much smaller number of counties contributing. However, the same five counties were estimated to account for 98 percent of the state's oil and gas severance taxes.

Three issues are noteworthy in Table 6. First, there can be dramatic year-over-year changes in the amount of severance taxes attributed to a specific county. For instance, La Plata County's estimated contribution dropped from $28.3 million to $8.7 million from FY 2001-02 to FY 2002-03. As described earlier, a drop in natural gas prices and rising ad valorem tax credits can cause these types of swings in severance tax collections. The 38 percent decrease in natural gas prices in 2002 caused the severance tax liability of most taxpayers to fall in FY 2002-03, and many taxpayers were able to claim higher ad valorem tax credits because they were based on the elevated value of production in 2001. Second, because of the sustained increase in energy prices over the past several

years, producers in more counties are estimated to pay severance taxes. This is due to higher prices, production increases, and the lagged effect of the ad valorem credit. Third, there is generally a positive correlation between natural gas production and severance tax collections, with the exception of Weld County. Weld County is a relatively small contributor to state severance tax revenue because of its higher mill levy, higher estimated ad valorem tax credits, and higher percentage of production from stripper wells. The appendix shows the amount of natural gas produced in each county.

**Table 6**
**Estimated Oil and Gas Severance Tax Collections, by County ($000's)***

| County | FY 2001-02 | FY 2002-03 | FY 2003-04 | FY 2004-05 | FY 2005-06 |
|---|---|---|---|---|---|
| La Plata | 28,289 | 8,686 | 61,122 | 73,198 | 100,937 |
| Garfield | 5,246 | 1,333 | 18,315 | 27,502 | 52,980 |
| Las Animas | 4,779 | 3,569 | 10,357 | 14,677 | 22,367 |
| Rio Blanco | 2,522 | 2,189 | 5,985 | 8,975 | 15,558 |
| San Miguel | 777 | 993 | 3,119 | 3,100 | 4,496 |
| Cheyenne | 430 | 508 | 1,852 | 2,462 | 3,801 |
| Weld | 0 | 0 | 5,822 | 0 | 3,681 |
| Moffat | 0 | 0 | 1,548 | 1,243 | 2,505 |
| Mesa | 191 | 162 | 1,007 | 627 | 1,969 |
| Yuma | 0 | 0 | 371 | 0 | 913 |
| Archuleta | 0 | 0 | 115 | 137 | 490 |
| Washington | 0 | 0 | 238 | 0 | 289 |
| Boulder | 0 | 0 | 0 | 0 | 171 |
| Baca | 0 | 0 | 186 | 0 | 209 |
| Routt | 0 | 0 | 0 | 0 | 169 |
| Delta | 0 | 0 | 0 | 0 | 134 |
| Prowers | 0 | 0 | 0 | 0 | 134 |
| Philips | 0 | 0 | 0 | 0 | 130 |
| **Total**** | **42,334** | **17,496** | **110,386** | **132,323** | **211,249** |

*Source: Colorado Legislative Council Staff estimates.*

* *Includes only counties estimated to provide over $100,000 in revenue in 2006.*

** *Total includes other counties not shown in the table which account for small amounts of severance tax revenue.*

Table 7 estimates severance tax collections for the four major production basins in the state. Basin totals were derived by aggregating county totals for counties whose boundaries overlapped with basin boundaries. All other counties were allocated to the "other" category. The majority of severance taxes come from producers in the San Juan and Piceance basins, with relatively small amounts coming from the Raton and the Denver-Julesberg basins.

**Table 7**
**Estimated Oil and Gas Severance Tax Collections, by County ($000's)**

| County | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Denver-Julesberg | 0 | 0 | 6,431 | 0 | 5,184 |
| Piceance | 7,959 | 3,684 | 26,855 | 38,347 | 73,315 |
| Raton | 4,779 | 3,569 | 10,357 | 14,677 | 22,367 |
| San Juan | 29,099 | 9,679 | 64,356 | 76,435 | 105,923 |
| Other | 497 | 564 | 2,387 | 2,864 | 4,460 |
| **Total** | **42,334** | **17,496** | **110,386** | **132,323** | **211,249** |

*Source: Colorado Legislative Council Staff estimates.*

## Federal Mineral Leasing (FML) Revenue

***Current Statutory Structure.*** When individuals or companies lease federal lands for mineral development, the federal government collects revenue from those leases, which are partially shared with the states in which production occurred. Three forms of revenue are collected by the federal government. Lease holders competitively bid and initially pay a "bonus" to use the land. Lease holders also pay rent for the right to develop mineral production on these lands. Finally, if minerals are extracted and sold, the federal government receives a royalty (or percentage) from the production. FML revenue is distributed 50 percent to the state within which production occurred, 40 percent is distributed to the Reclamation Fund in the U.S. Treasury for water projects in 17 western states, and 10 percent goes to the U.S. Treasury's General Fund. The Minerals Management Service, within the Department of the Interior, is responsible for collecting and disbursing revenue from mineral production on federal lands.

Table 8 illustrates the current structure of federal mineral leases for onshore production, excluding leases on the National Petroleum Reserve or on American Indian lands.

| Table 8<br>Current Structure of Federal Mineral Leases | |
|---|---|
| **Extracted Mineral** | **Provisions in Pubic Law** |
| Onshore Oil & Natural Gas Leases (competitively bid) | • For leases issued after December 22, 1987, royalty rate of:<br>- 12.5 percent in amount or value of production<br>• For leases issued after December 22, 1987, rental rates of:<br>- $1.50 per acre for first five years,<br>- $2.00 per acre for subsequent years, and bonus paid at issuance of the lease.<br>• Certain transportation and processing expenses are deductible from the value of production.<br>• Primary term of lease is 10 years, which can be continued if commercially producing; maximum size of lease is 2,560 acres. |
| Coal | • For leases issued after August 4, 1976, royalty rate of:<br>- 12.5 percent of the value of production for surface mines<br>- 8.0 percent of the value of production for underground mines<br>• For leases issued after August 4, 1976, rental rates of:<br>- $3.00 per acre, not credited against royalty payments<br>• Certain transportation and processing expenses are deductible from the value of production.<br>• Primary term of lease is 20 years, which can be continued in 10-year increments if producing; maximum size of lease is 75,000 acres in one state and no more than 150,000 total acres in the U.S. |

*Source: Minerals Management Service.*

It should also be noted that the Bureau of Land Management is currently in the process of defining the terms for oil shale leases on federal lands. The Draft Oil Shale and Tar Sands Leasing Programmatic Environmental Impact Statement is scheduled to be released in the summer of 2007.

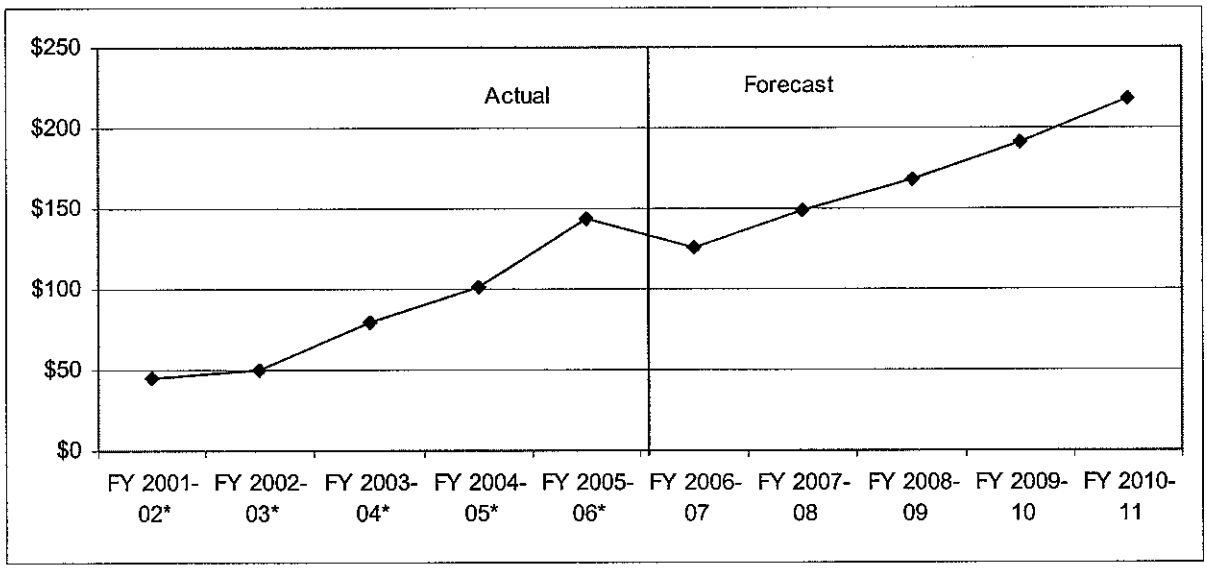
***History of FML Revenue Structure.*** Prior to the effective dates noted in Table 8, the structure of federal mineral leases for natural gas, oil, and coal varied. In particular, from May 3, 1945 until December 22, 1987, royalty rates for onshore oil leases ranged from 12.5 percent to 25 percent, depending on the amount of production per well per day for the calendar month. Similarly, royalty rates for onshore gas leases ranged from 12.5 percent to 16.67 percent, depending on the amount of production per well per day. Rental rates for oil and gas leases were also different. Prior to September 2, 1960, rental rates ranged from $0.25 to $1.00 per acre. From September 2, 1960 to December 22, 1987, rental rates were a flat $2.00 per acre.

Coal leases issued prior to August 4, 1976 were based on the tonnage produced, not the value of production. Underground mines on federal land paid $0.15 per ton, while surface mines paid $0.175 per ton. In addition, rental rates were $1 per acre, which could be credited against the royalty payments for the lease year.

## History and Forecast of FML Revenue

The June 2007 Legislative Council Staff forecast for FML revenue anticipates distributions of $126.1 million in FY 2006-07. Compared with FY 2005-06, however, distributions are down 12.0 percent, primarily because of decreases in natural gas prices. Figure 2 illustrates the history and forecast of FML revenue.

**Figure 2**
**History and Forecast of FML Revenue (millions of dollars)**




*Source: Legislative Council Staff, years with asterisk represent actual revenue*

Over the past five years, total distributions of FML revenue to Colorado have grown substantially. In FY 2001-02, Colorado received $44.6 million in FML revenue. In FY 2005-06, the state received $143.4 million, a 221 percent increase over that period of time. Table 9 illustrates Colorado's distribution of FML revenue over the past five years and it provides an estimate of revenue by type of mineral.

**Table 9**
**Estimated FML Revenue, by Type of Mineral, (millions of dollars)**

| Mineral | FY 2001-02 | FY 2002-03 | FY 2003-04 | FY 2004-05 | FY 2005-06 |
|---|---|---|---|---|---|
| Natural Gas Royalties | $10.0 | $17.8 | $35.0 | $54.3 | $87.3 |
| Coal Royalties | $19.3 | $11.4 | $19.1 | $16.1 | $23.6 |
| Oil Royalties | $5.9 | $6.9 | $8.5 | $9.6 | $13.5 |
| Other | $5.6 | $4.1 | $8.2 | $4.7 | $0.6 |
| Rent/Bonus | $3.8 | $9.9 | $8.5 | $16.3 | $18.4 |
| **Total** | **$44.6** | **$50.0** | **$79.4** | **$101.0** | **$143.4** |

*Source: Colorado Legislative Council Staff estimates.*

As indicated, the amount generated from natural gas production, which includes carbon dioxide, has risen from $10 million in FY 2001-02 to $87 million in FY 2005-06. As a percentage of total revenue, natural gas royalties accounted for 61 percent of 2006 FML revenues. Coal and oil royalties accounted for about 16 and 9 percent respectively, and rent and bonus payments accounted for about 13 percent.

***FML Revenue, by County of Origin***. Like severance taxes, the generation of FML revenue is highly concentrated in a few counties. Table 10 illustrates the top ten counties in FY 2005-06 in terms of FML revenue generation.

**Table 10**
**FML Revenue, by County of Origin, (millions of dollars)**

| County | FY 2001-02 | FY 2002-03 | FY 2003-04 | FY 2004-05 | FY 2005-06 |
|---|---|---|---|---|---|
| Garfield | $4.3 | $4.6 | $9.6 | $25.3 | $37.6 |
| Rio Blanco | $10.5 | $14.0 | $17.9 | $20.7 | $31.7 |
| Moffat | $11.7 | $13.7 | $14.6 | $19.2 | $21.0 |
| Montezuma | $3.6 | $2.9 | $6.3 | $7.6 | $13.5 |
| San Miguel | $0.4 | $2.7 | $5.9 | $6.3 | $9.4 |
| Mesa | $0.8 | $0.7 | $2.2 | $2.2 | $6.9 |
| Gunnison | $2.8 | ($0.5) | $9.7 | $5.5 | $6.4 |
| La Plata | $1.2 | $2.1 | $3.1 | $3.8 | $5.3 |
| Delta | $5.4 | $5.0 | $5.8 | $4.3 | $3.6 |
| Dolores | $0.4 | $0.5 | $0.7 | $0.9 | $3.0 |
| All Other Counties | $3.6 | $4.3 | $3.5 | $5.2 | $4.9 |
| **Total** | **$44.6** | **$50.0** | **$79.4** | **$101.0** | **$143.4** |

In the past five years, several changes have occurred which changed the ranking and composition of these counties. First, some counties have experienced a marked increase in natural gas production over the last five years. In particular, Garfield and San Miguel counties generated $4.3 million and $0.4 million respectively, in FY 2001-02. Five years later, these two counties accounted for $37.6 million and $9.4 million in FML revenue. Over this period, the share of FML revenue generated by these two counties has risen from 12 percent to 32 percent.

Second, the rankings reflect the importance of different types of mineral production on federal lands in Colorado: natural gas, coal, carbon dioxide, and oil. Of the ten counties listed in Table 10, five are primarily natural gas producing counties (Garfield, La Plata, San Miguel, Mesa, and Dolores), three are primarily coal producing counties (Moffat, Gunnison, and Delta), one produces both oil and gas (Rio Blanco), and one produces carbon dioxide (Montezuma). Over the

last five years, the share of FML revenue from gas producing counties has increased from 19 percent to 41 percent while the share from coal producing counties has fallen from 43 percent to 23 percent. The share of FML revenue from Rio Blanco and Montezuma counties has remained relatively constant.

## Appendix

| Natural Gas Production, by County (Thousand Cubic Feet, Mcf) | | | | | |
|---|---|---|---|---|---|
| **County** | **CY 2002** | **CY 2003** | **CY 2004** | **CY 2005** | **CY 2006** |
| La Plata | 455,217,621 | 473,016,862 | 469,883,177 | 458,339,163 | 437,206,678 |
| Garfield | 116,557,954 | 149,555,132 | 209,442,621 | 269,878,905 | 328,666,751 |
| Weld | 183,639,838 | 198,171,374 | 196,685,430 | 187,863,119 | 175,259,957 |
| Las Animas | 64,621,771 | 74,877,333 | 81,670,644 | 89,491,188 | 100,422,479 |
| Rio Blanco | 35,920,570 | 34,126,800 | 33,430,676 | 36,594,928 | 43,084,570 |
| Yuma | 21,682,213 | 22,894,191 | 23,103,512 | 25,990,167 | 36,689,970 |
| San Miguel | 12,170,443 | 20,048,498 | 21,938,408 | 20,776,944 | 20,709,211 |
| Moffat | 19,177,153 | 18,503,219 | 19,515,631 | 19,565,540 | 19,149,547 |
| Mesa | 7,682,786 | 9,313,157 | 7,725,436 | 10,566,974 | 14,724,080 |
| Cheyenne | 9,428,565 | 9,474,732 | 8,258,447 | 7,882,553 | 7,213,724 |
| Adams | 7,956,084 | 8,619,543 | 8,076,570 | 7,247,621 | 6,463,495 |
| Archuleta | 1,318,524 | 1,316,570 | 1,450,982 | 2,315,089 | 3,673,494 |
| Washington | 1,343,981 | 1,257,431 | 1,507,448 | 1,986,333 | 2,215,501 |
| Boulder | 1,711,365 | 1,818,648 | 2,098,791 | 2,316,040 | 2,160,980 |
| Baca | 2,732,198 | 2,728,493 | 2,339,869 | 2,055,871 | 2,075,633 |
| Huerfano | 1,445,566 | 1,312,123 | 1,237,590 | 1,124,876 | 1,508,507 |
| Prowers | 792,356 | 667,841 | 506,132 | 717,024 | 931,207 |
| Dolores | 352,286 | 295,226 | 340,273 | 629,419 | 897,837 |
| Montezuma | 1,775,417 | 1,307,437 | 1,175,600 | 836,777 | 761,231 |
| Kiowa | 1,169,680 | 910,544 | 820,370 | 708,062 | 711,326 |
| Broomfield | 685,581 | 659,707 | 769,904 | 729,173 | 615,338 |
| Phillips | 877 | 813 | 1,040 | 474,847 | 555,029 |
| Gunnison | 39,699 | 78,915 | 78,585 | 7,122 | 516,032 |
| Bent | 721,514 | 608,650 | 587,967 | 550,351 | 490,063 |
| Arapahoe | 497,518 | 474,602 | 517,802 | 436,623 | 374,738 |
| Kit Carson | 771,618 | 584,033 | 387,914 | 350,874 | 346,906 |

| Natural Gas Production, by County (Thousand Cubic Feet, Mcf) | | | | | |
|---|---|---|---|---|---|
| **County** | **CY 2002** | **CY 2003** | **CY 2004** | **CY 2005** | **CY 2006** |
| Morgan | 191,709 | 289,576 | 318,659 | 317,842 | 290,210 |
| Logan | 233,493 | 254,253 | 236,965 | 275,855 | 260,132 |
| Denver | 339,876 | 322,417 | 275,488 | 241,681 | 235,495 |
| Larimer | 287,913 | 262,734 | 242,988 | 210,175 | 212,406 |
| Elbert | 269,858 | 275,563 | 232,917 | 175,307 | 196,851 |
| Delta | 5,884 | 2,226 | 25,044 | 401,055 | 64,568 |
| Jackson | 0 | 3,636 | 44,105 | 32,788 | 57,986 |
| Sedgwick | 0 | 0 | 46,226 | 84,697 | 50,202 |
| Routt | 95,265 | 99,932 | 90,258 | 67,404 | 38,192 |
| Lincoln | 20,058 | 23,173 | 27,786 | 25,346 | 27,203 |
| **TOTAL** | 950,857,234 | 1,034,155,384 | 1,095,091,215 | 1,151,267,733 | 1,208,857,799 |